ABSTRACT

There is disclosed a method for moving a carriage assembly
from an initial position to a target position relative to a
storage medium rotating at a circumferential velocity. The

5 method comprises the steps of determining a first radial distance
between the initial position and a center of the storage medium,
determining a second radial distance between the target position
and the center of the storage medium, determining a
circumferential distance between the initial position and the

10 target position, determining an initial circumferential velocity
of the storage medium, calculating a velocity trajectory relative
to the first radial distance, the second radial distance, the
circumferential distance, and the initial circumferential
velocity, and moving the carriage assembly from the initial

15 position to the target position substantially at the velocity
trajectory. The velocity trajectory is calculated such that the
carriage assembly will arrive radially and circumferentially at
the target position at substantially the same time.
Additionally, a target circumferential velocity may be

20 determined, the rotation of the storage medium may be changed
from the initial circumferential velocity to the target
circumferential velocity, and the velocity trajectory is further
related to the target circumferential velocity.